IN THE CLAIMS:

Listing of the claims:

1. (Original) An attitude sensing device for determining an attitude of a reference axis of a package containing a fibre optic sensor, comprising:

an electro-mechanical attitude sensor for generating an electrical signal indicative of the attitude of that attitude sensor; and

converter logic for converting the electrical signal into a stimulus signal;

the fibre optic sensor being responsive to the stimulus signal to cause a variation in at least one predetermined property of an optical signal transmitted through the fibre optic sensor, the attitude of the reference axis being determinable from the variation of the predetermined property.

2. (Original) An attitude sensing device as claimed in Claim 1, further comprising:

a power source for the electro-mechanical attitude sensor and the converter logic.

3. (Currently amended) An attitude sensing device as claimed in Claim 1 ~~or Claim 2~~, wherein the fibre optic sensor is a vibration sensor, and the converter logic comprises:

control logic for generating a drive signal dependent on the electrical signal generated by the electro-mechanical attitude sensor; and

a vibration source for receiving the drive signal and generating as the stimulus signal a sequence of vibrations dependent on the drive signal;

whereby the fibre optic vibration sensor is responsive to the sequence of vibrations to cause the variation in the at least one property of the optical signal.

4. (Original) An attitude sensor as claimed in Claim 3, wherein the sequence of vibrations from the vibration source is encoded digitally.

5. (Original) An attitude sensor as claimed in Claim 3, wherein the sequence of vibrations from the vibration source is encoded using vibrations of varying amplitude.

6. (Original) An attitude sensor as claimed in Claim 3, wherein the sequence of vibrations from the vibration source is encoded using vibrations of varying frequency.

7. (Original) An attitude sensor as claimed in Claim 3, wherein the sequence of vibrations from the vibration source is encoded using vibrations of varying duration.

8. (Currently amended) An attitude sensing device as claimed in ~~any of~~ claims 3 ~~to 7~~, wherein the vibration source is a piezoelectric vibrator.

9. (Currently amended) An attitude sensing device as claimed in ~~any preceding~~ claim 1, wherein the fibre optic sensor is a geophone.

10. (Currently amended) An attitude sensing device as claimed in ~~any preceding~~ Claim 2 ~~when dependent on Claim 2~~, wherein the power source is a battery.

11. (Original) An attitude sensing device as claimed in Claim 10, further comprising an opto-electronic converter coupled to the battery, and arranged to receive an optical charge signal transmittable to the opto-electronic converter via an optical fibre, the opto-electronic converter being responsive to the optical charge signal to generate a current used to charge the battery.

12. (Currently amended) An attitude sensing device as claimed in ~~any preceding claim~~ Claim 1, further comprising a timer for determining when to switch on the attitude sensor to cause the electrical signal to be generated.

13. (Currently amended) An attitude sensing device as claimed in ~~any preceding claim~~ Claim 1, further comprising a receiver for receiving a command signal, the receiver being responsive to the command signal to switch on the attitude sensor to cause the electrical signal to be generated.

14. (Cancelled)

15. (Original) An attitude sensor as claimed in Claim 13, wherein the receiver is an optical receiver and the command signal is an optical command signal transmittable to the optical receiver via an optical fibre.

16. (Currently amended) An attitude sensing device as claimed in ~~any preceding claim~~ Claim 1, further comprising:

a further electro-mechanical attitude sensor for generating an electrical signal indicative of the attitude of that further attitude sensor, the further attitude sensor being mounted at an angle with respect to the attitude sensor, the converter logic being arranged to receive the electrical signals from both attitude sensors, and to generate a single drive signal dependent on those electrical signals which is used to generate the sequence of vibrations.

17. (Cancelled)

18. (Original) An attitude sensing device as claimed in Claim 17, wherein the coding scheme is a time division multiplexed scheme.

19. (Currently amended) A package comprising:

one or more fibre optic sensors; and

an attitude sensing device as claimed in ~~any preceding claim~~ Claim 1.

20. (Currently amended) An array of packages coupled by a fibre optic cable, each package comprising one or more fibre optic sensors coupled to the fibre optic cable, and an attitude sensing device as claimed in ~~any of~~ claims 1 ~~to 8~~.

21. (Original) A method of determining an attitude of a reference axis of a package containing a fibre optic sensor, comprising the steps of:

(i) employing an electro-mechanical attitude sensor within the package to generate an electrical signal indicative of the attitude of that attitude sensor;

(ii) converting, within the package, the electrical signal into a stimulus signal;

(iii) arranging the fibre optic sensor to be responsive to the stimulus signal to cause a variation in at least one predetermined property of an optical signal transmitted through the fibre optic sensor; and

(iv) determining the attitude of the reference axis from the variation of the predetermined property.

22-24. (Cancelled) An attitude sensing device, substantially as hereinbefore described with reference to the accompanying drawings.

25. (New) An attitude sensing device as claimed in Claim 3, further comprising a receiver for receiving a command signal, the receiver being responsive to the command signal to switch on the attitude sensor to cause the electrical signal to be generated.

26. (New) An attitude sensing device as claimed in Claim 25, wherein the command signal comprises a predetermined vibration sequence and the receiver is formed by the vibration source, the vibration source being further arranged to convert the received command signal into an electrical signal used to switch on the attitude sensor.

27. (New) An attitude sensing device as claimed in Claim 3, further comprising:

a further electro-mechanical attitude sensor for generating an electrical signal indicative of the attitude of that further attitude sensor, the further attitude sensor being mounted at an angle with respect to the attitude sensor, the converter logic being arranged to receive the electrical signals from both attitude sensors, and to generate a single drive signal dependent on those electrical signals which is used to generate the sequence of vibrations.

28. (New) An attitude sensing device as claimed in Claim 27, wherein a coding scheme is used for the sequence of vibrations from the vibration source such that the attitude of each attitude sensor is represented independently within the sequence of vibrations.